

Originally proposed additions are underlined.
Latest proposed additions are double underlined,
Latest proposed deletions are ~~double strikethrough~~.

Title 4. Business Regulations

Division 9. Division of Measurement Standards, Department of Food and Agriculture

Chapter 1. Tolerances and Specifications for Commercial Weighing and Measuring Devices

Article 1. National Uniformity, Exceptions and Additions

§ 4001. Exceptions.

The following regulations in Handbook 44 are not adopted or incorporated by reference:

1.10. General Code.

G-S.1.2. Remanufactured Devices and Remanufactured Main Elements.

G-T.1. Acceptance Tolerances.

(b) equipment that has been placed in commercial service within the preceding 30 days and is being officially tested for the first time;

(c) equipment that has been returned to commercial service following official rejection for failure to conform to performance requirements and is being officially tested for the first time within 30 days after corrective service;

(d) equipment that is being officially tested for the first time within 30 days after major reconditioning or overhaul;

2.20. Scales.

S.1.8.4. Customer's Indications.

N.3. Minimum Test Weights and Test Loads*.

UR.2.6.1 Vehicle Scales.

UR.3.7. Minimum Load on a Vehicle Scale.

3.30. Liquid-Measuring Devices.

N.4.1.1. Wholesale Devices Equipped With Automatic Temperature Compensating Systems.

3.31. Vehicle-Tank Meters.

UR.2.2. Ticket Printer; Customer Ticket.

3.32. Liquefied Petroleum Gas and Anhydrous Ammonia Liquid-Measuring Devices.

S.2.6. Automatic Temperature Compensation.

N.4.1.1. Automatic Temperature Compensation.

UR.2.3. Vapor Return Line.

3.33. Hydrocarbon Gas Vapor-Measuring Devices.

S.4.3. Temperature Compensation.

3.37. Mass Flow Meters.

S.1.3.1.1. Compressed Natural Gas Used as an Engine Fuel.

S.1.3.1.2. Liquefied Natural Gas Used as an Engine Fuel.

S.5.2. Marking of Equivalent Conversion Factors for Compressed Natural Gas.

S.5.3. Marking of Equivalent Conversion Factor for Liquefied Natural Gas.

UR.3.1.1. Marking of Equivalent Conversion Factors for Compressed Natural Gas.

UR.3.1.2. Marking of Equivalent Conversion Factor for Liquefied Natural Gas.

3.39. Hydrogen Gas-Measuring Devices.

Section 3.39 Hydrogen Gas-Measuring Devices – Tentative Code

A.2. Exceptions

(c). Devices used for dispensing a hydrogen gas with a hydrogen fuel index lower than 99.97 % and concentrations of specified impurities that exceed level limits.

A.4. Type Evaluation.

N.3. Test Drafts.

N.4.1. Master Meter (Transfer) Standard Test.

N.4.2. Gravimetric Tests.

N.4.3. PVT Pressure Volume Temperature Test.

N.6.1.1. Repeatability Tests.

T.2. Tolerances.

Table T.2.

T.3. Repeatability.

3.40. Electric Vehicle Fueling Systems – Tentative Code.

A.4. Type Evaluation.

S.1.3.2. EVSE Value of Smallest Unit.

S.2.4.1. Unit Price.

S.2.4.2. Equipment Capacity and Type of Voltage.

S.2.7. Indication of Delivery.

S.3.5. Temperature Range for System Components.

S.5.2. EVSE Identification and Marking Requirements.

N.2. Starting Load Test.

T.2. Load Test Tolerances.

T.2.1. EVSE Load Test Tolerances.

UR.3.1. Unit Price for Retail EVSE Devices.

Appendix D. Definitions for:

Diesel Gallon Equivalent (DGE).

Electricity as Vehicle Fuel.

Gasoline Gallon Equivalent (GGE).

Remanufactured Device.

Repaired Device.

Remanufactured Element.

Repaired Element.

Note: Authority cited: Sections 12027 and 12107, Business and Professions Code. Reference: Section 12107, Business and Professions Code.

§ 4002.11. Electrical Vehicle Fueling Systems. (3.40.)

(a) A.1.1. Effective Date for AC EVSE. – Effective January 1, 2020, all AC EVSE used for commercial purposes must comply with all specifications, tolerances and other technical requirements of this section and those adopted in section 4000 of this article.

A.1.2. Effective Date for DC EVSE. – Effective January 1, 2021, all DC EVSE used for commercial purposes must comply with all specifications, tolerances and other technical requirements of this section and those adopted in section 4000 of this article.

A.4. Type Evaluation. – The National Type Evaluation Program (NTEP) or California Type Evaluation Program (CTEP) will accept for type evaluation only those EVSEs that comply with all requirements of this code and have received safety certification by a nationally recognized testing laboratory (NRTL).

S.1.3.2. EVSE Value of Smallest Unit. – The value of the smallest unit of indicated delivery by an EVSE, and recorded delivery if the EVSE is equipped to record, shall be no greater than 0.0005 MJ or 0.0001 kWh.

S.2.4.1. Unit Price. – An EVSE shall be able to indicate the unit price at which the EVSE is set to compute or to dispense at any point in time during a transaction. A computing EVSE shall indicate the unit price in whole cents (e.g., \$0.12) or tenths of one cent (e.g., \$0.119) on the basis of price per megajoule (MJ) or kilowatt-hour (kWh). In cases where the electrical energy is unlimited or free of charge, this fact shall be clearly indicated in place of the unit price.

S.2.4.2. Equipment Capacity and Type of Voltage. – An EVSE shall be able to conspicuously display on each face the maximum rate of energy transfer (i.e., maximum power) and the type of current associated with each unit price offered (e.g., 7 kW AC, 25 kW DC, etc.).

S.2.7. Indication of Delivery. – The EVSE shall automatically display on its face the initial zero condition and the quantity delivered (up to the capacity of the indicating elements).

S.3.5. Temperature Range for System Components. – EVSEs shall be accurate and correct over the temperature range of – 40 °C to + 85 °C (– 40 °F to 185 °F). If the system or any measuring system components are not capable of meeting these requirements, the temperature range over which the system is capable shall be stated on the National Type Evaluation Program (NTEP) Certificate of Conformance (CC) or California Type Evaluation Program (CTEP) Certificate of Approval (COA), conspicuously, legibly, and indelibly marked on the EVSE, and installations shall be limited to the narrower temperature limits.

S.5.2. EVSE Identification and Marking Requirements. – In addition to all the marking requirements of Section 1.10. General Code, paragraph G-S.1. Identification, each EVSE shall have the following information conspicuously, legibly, and indelibly marked:

(a) voltage rating;

(b) maximum current deliverable;

(c) type of current (AC or DC or, if capable of both, both shall be listed);

- (d) minimum measured quantity (MMQ); and
 (e) temperature limits, if narrower than and within – 40 °C to + 85 °C (– 40 °F to 185 °F).

N.2. Starting Load Test. – A system starting load test may be conducted by applying rated voltage and 0.5-ampere load.

T.2. Load Test Tolerances. – The tolerances for EVSE load tests shall be as shown in Table T.2. Accuracy Classes and Tolerances for EVSE.

<u>Table T.2.</u> <u>Accuracy Classes and Tolerances for EVSE</u>			
<u>Accuracy Class</u>	<u>Application or Commodity Being Measured</u>	<u>Acceptance Tolerance</u>	<u>Maintenance Tolerance</u>
<u>2.0</u>	<u>AC electricity as a vehicle fuel</u>	<u>1.0 %</u>	<u>2.0 %</u>
<u>5.0¹</u>	<u>DC electricity as a vehicle fuel</u>	<u>2.5 %</u>	<u>5.0 %</u>
<u>2.0²</u>	<u>DC electricity as a vehicle fuel</u>	<u>1.0 %</u>	<u>2.0 %</u>
<u>¹The tolerance values for Accuracy Class 5.0 DC EVSE are applicable to devices installed prior to January 1, 2021.</u>			
<u>²The tolerance values for Accuracy Class 2.0 DC EVSE are applicable to devices installed on or after January 1, 2021.</u>			

UR.3.1. Unit Price for Retail EVSE Devices. – The unit price at which the EVSE is set to compute shall be conspicuously indicated for any retail EVSE used in direct sale.

Appendix D. Definitions

electricity as vehicle fuel. – Electrical energy transferred to or stored onboard an electric vehicle primarily for the purpose of propulsion. [3.40]

Note: Authority cited Sections 12027 and 12107, Business and Professions Code. Reference: Sections 12107 and 13400(b)(4), Business and Professions Code.